CLAIM AMENDMENTS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A method comprising:

communicating a combined ~~Internet Protocol (IP) signal and an~~ [[A]]asynchronous [[T]]transfer [[M]]mode ~~(ATM)~~/internet protocol (ATM/IP) signal via an optical medium, wherein the combined ATM/IP signal comprises an asynchronous transfer mode (ATM) signal that is phase modulated based on an internet protocol ~~the~~ (IP) signal ~~to produce a combined ATM/IP signal,~~ by:

transmitting ~~wherein~~ the combined ATM/IP signal ~~is transmitted~~ via the optical medium to a first optical network termination (ONT), wherein the first ONT ~~that~~ does not include demodulator circuitry; and

transmitting the combined ATM/IP signal to a second ONT, wherein the second ONT ~~that does~~ includes the demodulator circuitry.

2. (Currently amended) The method of claim 1, wherein the ATM signal is phase modulated based on the IP signal without exceeding a specified tolerance of symbol period of the ATM signal.

3. (Previously presented) The method of claim 1, wherein the phase modulating encodes multiple bits of the IP signal per pulse in the ATM signal.

4. (Previously presented) The method of claim 1, wherein the phase modulating encodes two bits of the IP signal per pulse in the ATM signal.

5. (Previously presented) The method of claim 1, further comprising forming the combined ATM/IP signal by modulating a phase of the ATM signal based on the IP signal.

6. (Previously presented) The method of claim 1, wherein the combined ATM/IP signal is transmitted via an ATM-based network comprising a G.983-based network.

7. (Currently amended) The method of claim 1, wherein the first ONT is at a first user location and the second ONT is at a second user location, and wherein the first ONT is to extract an AMT stream uniquely associated with the first user location.

8. (Previously presented) The method of claim 1, wherein the combined ATM/IP signal is communicated via a passive optical network.

9-11. (Canceled).

12. (Withdrawn) An optical network termination (ONT) to extract an Internet Protocol (IP) stream from a received signal, the ONT comprising:

a phase demodulator adapted to:

phase demodulate a combined Asynchronous Transfer Mode (ATM)/Internet Protocol (IP) signal to extract the IP stream, wherein the combined ATM/IP signal has been received and wherein the combined ATM/IP signal comprises an ATM signal that has been phase modulated based on an IP signal.

13. (Withdrawn) The ONT of claim 12, wherein the phase demodulator is further adapted to decode multiple bits of the IP stream per pulse in the combined ATM/IP signal.

14. (Withdrawn) The ONT of claim 12, wherein the phase demodulator is further adapted to decode two bits of the IP stream per pulse in the combined ATM/IP signal.

15. (Currently amended) An apparatus to communicate an [[A]]asynchronous [[T]]transfer [[M]]mode (ATM) signal and an [[I]]internet [[P]]protocol (IP) signal, the apparatus comprising:

an optical line terminal (OLT), the OLT comprising a phase modulator configured to phase modulate the ATM signal based on the IP signal to produce a combined asynchronous transfer mode/internet protocol (ATM/IP) signal, the OLT further to output the combined ATM/IP signal;[[,]]

wherein the combined ATM/IP signal is transmitted to a first optical network termination (ONT) that does not include demodulator circuitry and to a second ONT that ~~does include~~ includes the demodulator circuitry.

16. (Previously presented) The apparatus of claim 15, wherein the phase modulator is further configured to phase modulate the ATM signal based on the IP signal without exceeding a specified tolerance of symbol period of the ATM signal.

17. (Previously presented) The apparatus of claim 15, wherein the phase modulator is further configured to encode multiple bits of the IP signal per pulse in the ATM signal.

18. (Canceled).

19. (Withdrawn) A method of communicating an IP stream, the method comprising:

extracting a first IP stream from a combined Asynchronous Transfer Mode (ATM) signal/Internet Protocol (IP) signal received at a first location, wherein extracting the first IP stream comprises phase demodulating the combined ATM/IP signal;

wherein the combined ATM/IP signal comprises an ATM signal that has been phase modulated based on an IP signal.

20. (Withdrawn) The method of claim 19, further comprising extracting a first ATM stream from the combined ATM/IP signal received at a second location, wherein the extracted first ATM stream is specific to the second location.

21. (Withdrawn) The method of claim 20, further comprising extracting a second ATM stream from the combined ATM/IP signal received at a third location, wherein the second ATM stream is specific to the third location.

22. (Withdrawn) The method of claim 19, further comprising extracting a second IP stream at a second location by phase demodulating the combined ATM/IP signal.

23. (Withdrawn) The method of claim 22, wherein the first IP stream is specific to the first location and the second IP stream is specific to the second location.

24. (Withdrawn) The ONT of claim 12, wherein the extracted IP stream is specific to the ONT.

25. (New) The method of claim 1, further comprising demodulating a received signal and outputting a received IP stream derived from the received signal.

26. (New) The apparatus of claim 15, wherein the OLT further comprises a phase demodulator.